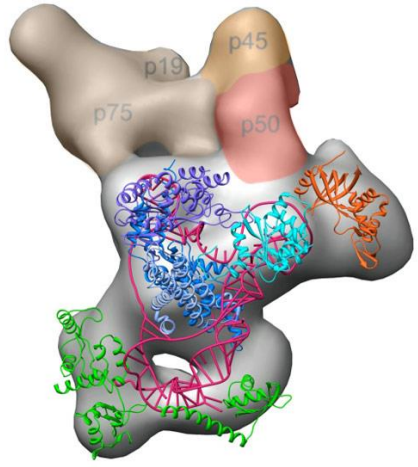
Catalogue for Invertase



This catalogue reflects general aspects of invertase related to invert sugar production

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INTRODUCTION

INVERTASE is a specially developed enzyme used for the production of invert syrup form sugar syrup. Mankind has been known to use invert syrup for centuries. Honey is the most well-known invert syrup. Invert syrup contains an equi-molar mixture of glucose and fructose and is 15 to 20% sweeter than a sugar syrup of equivalent strength. Sugarcane juice contains an inherited enzyme system which hydrolyzes sugar during processing, giving a mix of glucose, fructose, and sucrose along with minerals and proteins. Concentration of this syrup mix to a dry consistency leads to production of jaggery, commonly known as Gur. The Food and Pharmaceutical Industry is well versed with the use of invert syrup in different product formulations. Invert syrup is used very routinely in confectionery to prevent sugar cristallization. The use of invert syrup in formulating of oral preparations results in taste improvement.

Traditionally, the Acid-Hear inversion process prepares invert syrup. However, the resultant syrup is darker in color because it has higher ash content. The use of the enzyme invertase has a tremendous impact on the technology for making invert syrup. Clear Invert syrup with reduced color and mineral load can be easily prepared using **INVERTASE.**

Properties:

Appearance: Off white/tan powder

Solubility: Soluble in water

Odor & Taste:	Typical odor & taste
Activity:	20,000U/gm
Moisture:	Not more than 7 %
Opt. pH:	4,0-5,0
Opt. temperature:	40° - 60°C
E.Coli:	Negative
Salmonella:	Negative
TPC:	Less than 3000 CFU/gm
Heavy metals:	Less than 50 ppm

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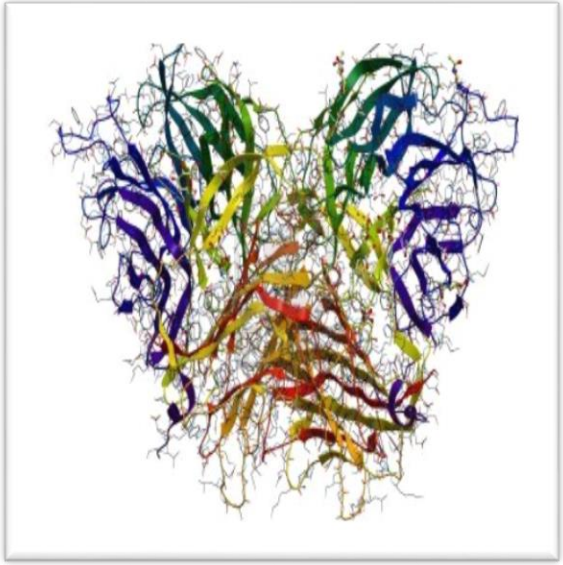
APPLICATION, STORAGE AND PACKAGING

Application

This enzyme can easily convert 60&(w/v) of a sucrose solution into invert sugar in 5hrs at 50°C. Deviation from optimum conditions of hydrolysis can be balanced by a necessary increase in enzyme dosage. However at a 70% solution of sucrose, good mixing is necessary in order to ensure complete and fast hydrolysis. As the diffusion of substrate and product become a rate-limiting step.

Storage and Packaging

Product is shipped in tightly sealed, double polybags, and packed in heavy duty fiber drums. Product should not lose more than 15-20% activity in 12 months from the date of manufacture, if stored in a cool dry place. For optimal stability store at 4°C and low RH.



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